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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/628,027	07/25/2003	James Smelser	15550.7	3365
20322	7590	06/07/2006	EXAMINER	
SNELL & WILMER ONE ARIZONA CENTER 400 EAST VAN BUREN PHOENIX, AZ 85004-2202			YIP, WINNIE S	
			ART UNIT	PAPER NUMBER
			3636	

DATE MAILED: 06/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/628,027	<b>Applicant(s)</b> SMELSER, JAMES	
	<b>Examiner</b> Winnie Yip	<b>Art Unit</b> 3636	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19, 21-26 and 28 is/are rejected.
- 7) ☒ Claim(s) 20 and 27 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/28/2003</u> . | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

This office action is in response to applicant's amendment filed on February 27, 2006.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

#### ***Election/Restrictions***

1. Applicant's election of Group I in the reply filed on February 27, 2006 is acknowledged. We agree that Group III, Fig. 6 should be a view of the embodiment of Group I. In regard to applicant's response, as better understood the claimed invention, the embodiment of Group II, Fig.5, only shows the embodiment including a plurality of bearings instead of a single bearing member between the core members. The related inventions are obvious variants. Therefore they are not patentable distinct. Therefore, the restriction requirement as set forth in the office action mailed on September 20, 2005 is hereby withdrawn. All claims hereby rejoined and fully examined.

#### ***Claim Objections***

2. Claims 20 and 27 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claim 20 fails to recite the method step of "are utilized in the manufacture of the brace to create the air gaps". According to the specification, the "spacers" will be removed from the final product and is not considered to be part of the claimed invention. The subject matter present is regarded as a product by process claim in which a product is introduced by the method

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in which it is made. It is the general practice of this office to examine the final product describes regardless of the method provided by the applicant.

Claim 27 fails to further provide structural limitation to the subject matter of an apparatus of a previous claim 26. Claim 27 merely recites a method step of making or using the product, a brace apparatus, by a step of “experience”.

These claims are not been treated on the merit.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 8-9, 12-14, and 17-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regard to claims 8-9, it is not clear what is meant by “a variable width”. Does it mean “adjustable width” or “a varying width”?

Regard to claim 12, “the plurality of bearing members” lacks sufficient antecedent basis since there is no bearing member is previously defined in claims 1 and 8-9.

Regard to claims 13-14, the term “a bearing member” is confusing whether this bearing member is different than the bearing members as previously defined in claim 11. If no, a proper antecedent basis is required.

Regard to claims 17-18, the limitations “an air gap” (claim 17) and “a plurality of air gaps” (claim 18) are confusing whether these air gaps are different than the air gap as previously defined in claim 16. A proper antecedent basis is required.

Regard to claim 19, the limitation “the air gaps” lacks a sufficient antecedent basis for this limitation in the claim since there is no air gap has been previously defined in claim 12.

A proper dependency may be required.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-15, 21, 24-26, and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese Patent No.11-117404.

The Japanese reference shows and teaches a brace apparatus (1) comprising: first and second core members (2) being coupled a bucking restraining assembly, each of the core members having two support ends and a central deformable region, the central deformable region being enclosed by the buckling restraining assembly, the buckling restraining assembly including a support tube (5) and a rigid layer (8) made of concrete material being disposed therebetween, an stickling preventing layer (3) providing bearing members disposed between the surfaces of

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the first and second core members to capably minimize the friction between the core members and the buckling restraining assembly (1), each ends of the core member having cross ribs (6) to coupled to the ends of the support tube (5), each of the core member having a variable width and a deformable length such that the effective deformable length of the brace apparatus comprising the sum of the effective deformable length of the first and second core members such that the core members in a two core members of brace apparatus are capable undergo a greater number of tension and compression cycles and great amount of deformation than a brace apparatus having a single core member of the same length.

7. Claims 1-15, 21, 24-26, and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese Patent No. 5-9977.

The Japanese reference (No. 5-9977) shows and teaches a brace apparatus (7) comprising: first and second core members (2) each having two enlarged ends (5) and a central deformable region being coupled to a buckling restraining assembly, the buckling restraining assembly including a metal support tube (6) positioned external to enclose the central deformable region length portion of core members, and a rigid layer (1) of cementitious material is disposed and circumscribing the core member, an antisticking coat layer (3) providing bearing members disposed between the surfaces of the first and second core members to capably minimize the friction between the core members and the buckling restraining assembly (7), the enlarged ends of core member being coupled to the ends of the support tube, each core member having a width and a deformable length which surrounded by the buckling restraining assembly such that the effective deformable length of the brace apparatus comprising the sum of the effective

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deformable length of the first and second core members such that the core members (2) of the brace apparatus being capable undergo a greater number of tension and compression cycles and great amount of deformation than a brace apparatus having a single core member of the same length as claimed.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeuchi et al. (Japanese Patent No. 11-117404) or Sugisawa et al. (Japanese Patent No. 5-9977) as applied to claims 10-15 above, and further in view of Fukuda et al. (Japanese Patent 2000-27293).

The claims are considered to meet by Takeuchi et al. or Sugisawa et al. except that either of above Japanese references does not define a brace including a plurality of air gaps being disposed between the buckling restraining assembly and the core members. Fukuda et al. teaches a brace apparatus comprising a core member (2) having a central portion enclosed by a buckling restraining assembly, the buckling restraining assembly comprising a metal support tube (4) and a rigid layer of material affixed to inner surface of the metal support tube and circumscribing the core member, two sealing members (9) disposed between the core member on opposed surfaces of the core member, a plurality of spacers (10a) being disposed between sealing members (9) and the core member (2) to provide an air gap therebetween. It would

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have been obvious to one ordinary skill in the art at the time the invention was made to modify the brace apparatus of Takeuchi et al. or Sugisawa et al. having a plurality of spaces (10a) disposed between the sealing members and the core member to form air gaps between the core member and the buckling restraining assembly as taught by Fukuda et al. for minimizing contact surfaces between the core members and the buckling restraining assembly and limiting the friction generated between the core member and the buckling restraining assembly when the core members undergoes plastic deformation.

10. Claims 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takeuchi et al. (Japanese Patent No. 11-117404) or Sugisawa et al. (Japanese Patent No. 5-9977) as applied to claim 21 above, and further in view of Fukuda et al. (Japanese Patent 2000-265706).

The claims are considered to meet by Takeuchi et al. or Sugisawa et al. except that either of above Japanese references does not define the support tube of the brace apparatus being comprised of a plurality of plate members being welded together and the ends of the core members are welded to the ends of the support tube respectively. Fukuda et al. further teaches a brace apparatus comprising a core member (2) having a central deformable region enclosed by a buckling restraining assembly, the buckling restraining assembly comprising a metal support cover (4) and a rigid layer of material affixed to inner surface of the metal support cover and circumscribing the core member, two sealing members (9) disposed between the core member on opposed surfaces of the core member, wherein core member (2) having two support ends with support ribs (22) being welded to the ends of the metal support cover to reinforce the support plate and couple the core member to the buckling restraining assembly. It would have been



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obvious to one ordinary skill in the art at the time the invention was made to modify the brace apparatus of Takeuchi et al. or Sugisawa et al. having the support tube being formed by a plurality of plates being welded together and having the ends of the core members being welded to the ends of the support plates as a method of forming a metal tubular member and method of rigidly coupling two metal members together as choice of framework support as know in the art as taught by Fukuda et al. for preventing buckling of the member.

### *Citations*

*11.* The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Fanucci et al. '182, Powell et al. '010, JP No. 2001-140340, JP No. 2001-182359, and JP 2002-'73982 teach various brace apparatuses including a core member being enclosed and supported by a buckling restraining assembly as similar to the claimed invention.

### *Inquiry Contacts*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Winnie Yip whose telephone number is 571-272-6870. The examiner can normally be reached on M-F (9:30-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Cuomo can be reached on 571-272-6856. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Winnie Yip  
Primary Examiner  
Art Unit 3636

wsy  
May 31, 2006